

WHAT IS CLAIMED IS:

- 1 1. Apparatus for remote inspection of a pressurized pipeline fluid, said apparatus
2 comprising:
3 a detector in communication with the pipeline fluid for measure of a predetermined
4 internal condition of the pipeline; and
5 an electronic circuit in communication between the detector and a remote central
6 station for issue of a wireless signal to the remote central station, the wireless signal
7 including information about the predetermined internal condition.
- 1 2. The apparatus of claim 1 wherein the electronic circuit is adapted to issue a wireless
2 signal upon detection of the predetermined internal condition.
- 1 3. The apparatus of claim 1 wherein the electronic circuit is adapted to issue a wireless
2 signal upon receipt of a signal from the remote central station.
- 1 4. The apparatus of claim 1 wherein the predetermined internal condition comprises an
2 out of range pressure condition of the pipeline fluid.
- 1 5. The apparatus of claim 4 wherein the detector comprises a fluid pressure gauge in
2 communication with the pipeline fluid for measure and display of a pressure condition of the
3 pipeline fluid.
- 1 6. The apparatus of claim 1 wherein the detector comprises a flow meter in
2 communication with the pipeline fluid for measure the rate of flow of the pipeline fluid and
3 the predetermined internal condition comprises the rate of flow of the pipeline fluid.
- 1 7. The apparatus of claim 6 wherein the electronic circuit is configured to issue a
2 wireless signal upon detection of a rate of flow below a predetermined level.
- 1 8. The apparatus of claim 1 further comprising a filter unit for filtering the pipeline
2 fluid, wherein the detector is mounted to the filter unit.

1 9. The apparatus of claim 1 further comprising a docking station, wherein the detector is
2 electrically connected to the docking station.

1 10. The apparatus of claim 1 wherein the electronic circuitry comprises electronic
2 transmission and reception circuitry for two way communication with the remote central
3 station.

1 11. The apparatus of claim 1 further comprising:
2 a second detector for detection of a second predetermined condition.

1 12. The apparatus of claim 11 wherein the second detector is in communication with the
2 pipeline fluid and is adapted to measure an internal condition of the pipeline fluid and the
3 second predetermined condition comprises a second predetermined internal condition of the
4 pipeline, and wherein the electronic circuitry is adapted to issue a wireless signal to the
5 remote control station that includes information about the second predetermined internal
6 condition.

1 13. The apparatus of claim 12 wherein the second predetermined condition is the rate of
2 flow of fluid through the pipeline and the second detector comprises a flow meter.

1 14. The apparatus of claim 11 wherein the second predetermined condition is a
2 predetermined external condition.

1 15. The apparatus of claim 14 wherein the predetermined external condition comprises
2 presence of an obstruction to viewing of or access to the detector.

1 16. The apparatus of claim 14 wherein the predetermined external condition comprises
2 lack of presence of the first detector in its installed position.

17. Apparatus for remote inspection of a pressurized medical fluid container comprising:
1 a detector in communication with the pressurized fluid for measure of a
2 predetermined internal condition of the container; and

3 an electronic circuit in communication between the detector and a remote central
4 station for issue of a wireless signal to the remote central station, the wireless signal
5 including information about the predetermined internal condition.

1 18. The apparatus of claim 17 wherein the electronic circuit is adapted to issue a wireless
2 signal upon detection of the predetermined internal condition.

1 19. The apparatus of claim 17 wherein the predetermined internal condition comprises an
2 out of range pressure condition of the fluid.

1 20. The apparatus of claim 17 wherein the electronic circuit is configured to issue a signal
2 upon detection that the pressure of the fluid is at or below a predetermined level.

1 21. The apparatus of claim 19 wherein the detector comprises a fluid pressure gauge in
2 communication with the container fluid for measure and display of a pressure condition of
3 the fluid.

1 22. The apparatus of claim 17 further comprising a docking station, wherein the detector
2 is electrically connected to the docking station and the electronic circuit is at least partially
3 contained within the docking station.

1 23. The apparatus of claim 17 further comprising:
2 a second detector for detection of a predetermined external condition.

1 24. The apparatus of claim 23 wherein the second detector comprises an electronic tether
2 in electrical communication with the electronic circuit.

1 25. The apparatus of claim 24 wherein the medical fluid container is located in an
2 installed position and the predetermined external condition comprises the lack of presence of
3 the medical fluid container in its installed position.

1 26. The apparatus of claim 25 wherein the electronic circuit is adapted to issue a signal
2 upon detection of the lack of presence of the medical fluid container in its installed position.

1 27. The apparatus of claim 23 wherein the second detector comprises a sonic sensor for
2 detecting presence of an obstruction to or viewing of the medical fluid container.

1 28. The apparatus of claim 23 further comprising:
2 a third detector for detection of a second predetermined external condition.

1 29. The apparatus of claim 28 wherein the second detector comprises an electronic tether
2 for detecting the lack of presence of the medical fluid container in an installed position and
3 the third detector comprises a sonic sensor for detecting presence of an obstruction to or
4 viewing of the medical fluid container.

30. Apparatus for remote inspection of a container adapted to hold pressurized
commercial or industrial gas, the apparatus comprising:

1 a detector in communication with the pressurized fluid for measure of a
2 predetermined internal condition of the container; and

3 an electronic circuit in communication between the detector and a remote central
4 station for issue of a wireless signal to the remote central station, the wireless signal
5 including information about the predetermined internal condition.

1 31. The apparatus of claim 30 wherein the electronic circuit is adapted to issue a wireless
2 signal upon detection of the predetermined internal condition.

1 32. The apparatus of claim 30 wherein the predetermined internal condition comprises an
2 out of range pressure condition of the fluid.

1 33. The apparatus of claim 30 wherein the electronic circuit is configured to issue a signal
2 upon detection that the pressure of the fluid is at or below a predetermined level.

1 34. The apparatus of claim 32 wherein the detector comprises a fluid pressure gauge in
2 communication with the container fluid for measure and display of a pressure condition of
3 the fluid.

1 35. The apparatus of claim 30 further comprising a docking station, wherein the detector
2 is electrically connected to the docking station and the electronic circuit is at least partially
3 contained within the docking station.

1 36. The apparatus of claim 30 further comprising:
2 a second detector for detection of a predetermined external condition.

1 37. The apparatus of claim 36 wherein the second detector comprises an electronic tether
2 in electrical communication with the electronic circuit.

1 38. The apparatus of claim 37 wherein the container is located in an installed position and
2 the predetermined external condition comprises the lack of presence of the container in its
3 installed position.

1 39. The apparatus of claim 38 wherein the electronic circuit is adapted to issue a signal
2 upon detection of the lack of presence of the container in its installed position.

1 40. The apparatus of claim 36 wherein the second detector comprises a sonic sensor for
2 detecting presence of an obstruction to or viewing of the medical fluid container.

1 41. The apparatus of claim 36 further comprising:
2 a third detector for detection of a second predetermined external condition.

1 42. The apparatus of claim 41 wherein the second detector comprises an electronic tether
2 for detecting the lack of presence of the medical fluid container in an installed position and
3 the third detector comprises a sonic sensor for detecting presence of an obstruction to or
4 viewing of the medical fluid container.